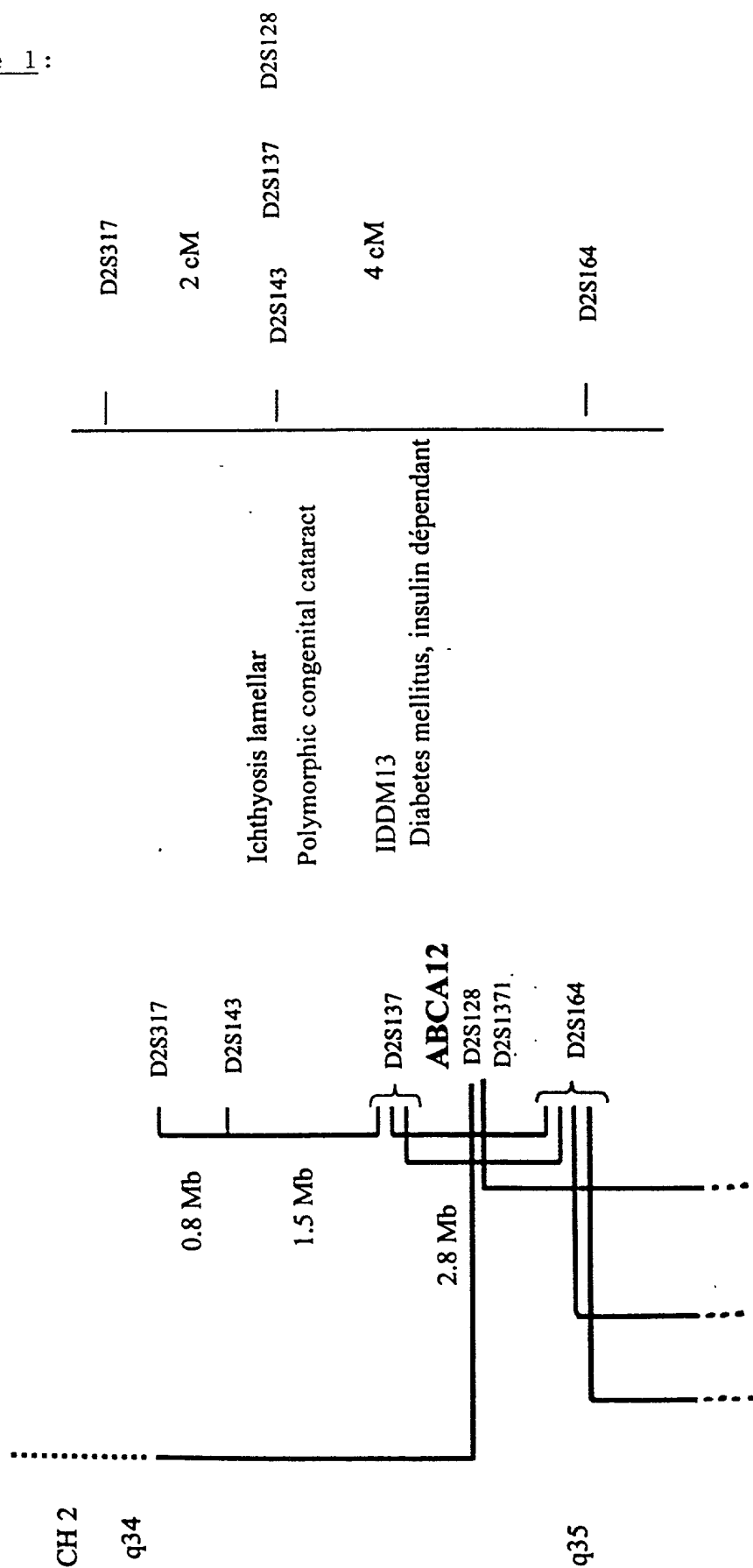Figure 1:

Figure 2:

SEQ ID NO: 1

5

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Figure 3

SEQ ID NO: 2

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5   GTAATATACTGTATGGAAAGTTACAACTGTGTTAGACTAACAAGTAATTATAAAAGGAAATTTT
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Figure 4

SEQ ID NO: 3

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10 CTAACATCATGATGCAGAACACCAACCCATCTGCCAGTCCTGAATACATGTTTTCCTCTAACAT
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25 TCCTACGGGCACTCGACAATGGCATGGGTGACCTCAACATCGGGTGCTACGGCATTTCAGATAC
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35 CTCCTGCTCAGAAAATGTCCAGGAATGTCCTAAATTTAACTATTCCCCACCGCACAGAAGAACT
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9

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10 GTTACAACTGTGTTAGACTAACAAGTAATTATAAAAGGAAATTTTTCCTTCTAAGGTCAGTGAG
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AAGACAGTTTAAAAGGCAAAAAAAAAAAAA

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Figure 5:

SEQ ID NO: 4

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 35  CTTCTGCGAGTTAACATGTCAAAATACGATGCTGCCCGACATGGCATCATCATGTATAGCCATC
     CTTATCCAGGAGTGCAAGACCAAGAACAAGCCACAATCAGCAGTTTAATCGATATTTTAGTGGC
     ACTGTCTATCTTGATGGGCTACTCTGTCACCACCGCCAGCTTTGTCACCTATGTTGTAAGGGAA
     CATCAAACCAAAGCCAAACAGTTGCAGCACATTTCAGGCATTGGCGTGACATGCTACTGGGTAA
     CAAACTTCATTTATGACATGGTTTTCTACTTGGTGCCTGTAGCGTTTTCAATTGGTATCATTGC
 40  GATTTTCAAATTACCTGCATTCTACAGTGAAAACAACCTAGGCGCTGTATCTCTCCTACTTCTC
     CTGTTTGGGCATGCAACATTTTCCTGGATGTACTTGCTGGCTGGGCTCTTCCATGAAACAGGAA
     TGGCCTTCATCACTTACGTCTGTGTCAACTTGTTTTTTGGCATTAATTCCATTGTTTCCCTGTC
     AGTGGTATACTTTCTTTCCAAGGAAAAGCCTAATGATCCGACTTTAGAACTTATTTCTGAAACC
     CTCAAGCGCATTTTCCTGATTTTCCCACAATTCTGTTTTGGCTACGGTTTGATTGAACTTTCTC
 45  AACAACAGTCGGTCCTAGACTTCTTAAAAGCATATGGAGTGGAATACCCAAATGAAACCTTTGA
     GATGAATAAACTAGGTGCAATGTTTGTGGCTTTGGTTTCTCAGGGCACCATGTTTTTTTCCTTG
     CGACTCTTAATCAACGAATCCCTGATAAAGAAACTCAGGCTTTTCTTCAGAAAATTTAATTCTT
     CACATGTAAGGGAGACAATAGATGAGGATGAAGATGTGCGGGCTGAGAGATTAAGAGTTGAGAG
     TGGTGCAGCTGAATTTGACTTGGTCCAACTTTATTGTCTCACAAAGACCTACCAACTTATCCAC
 50  AAAAAGATTATAGCTGTAAACAACATCAGCATCGGGATACCTGCTGGAGAGTGTTTTGGGCTTC
     TTGGAGTGAATGGAGCAGGAAAGACCACTATATTCAAGATGCTGACAGGAGACATCATTCCTTC
     AAGTGGAAACATTCTGATCAGAAATAAGACCGGATCTCTGGGTCACGTTGATTCTCACAGCTCA
     TTAGTTGGCTACTGTCCTCAGGAAGATGCCTTAGATGACCTGGTAACTGTGGAAGAACATTTGT
     ATTTCTATGCCAGGGTACATGGAATTCCAGAAAAGGATATTAAAGAAACTGTTCATAAACTCCT
 55  TAGGAGACTTCACCTGATGCCCTTCAAGGACAGAGCTACCTCTATGTGCAGTTATGGCACAAAA
     AGAAAATTATCCACTGCACTGGCCTTGATAGGGAAACCTTCCATTCTACTGCTGGATGAGCCGA
     GCTCTGGCATGGATCCGAAGTCGAAACGGCACCTCTGGAAGATCATTTCAGAAGAAGTACAGAA
     CAAATGTTCCGTCATCCTCACATCTCACAGCATGGAAGAATGTGAAGCTCTCTGTACCAGGTTG
     GCCATTATGGTGAATGGAAAGTTTCAATGTATTGGATCTTTGCAGCACATAAAGAGCAGGTTTG
 60  GACGAGGATTTACTGTCAAAGTTCACTTGAAGAATAACAAAGTGACCATGGAGACCCTCACAAA
     GTTCATGCAGCTGCACTTTCCAAAAACATACTTAAAAGATCAGCACCTCAGCATGCTAGAGTAT
     CATGTACCAGTCACAGCAGGAGGAGTCGCAAACATTTTTGATCTGCTGGAAACCAACAAGACTG
```

12

CTTTAAATATTACAAATTTCTTAGTGAGTCAGACCACTCTGGAAGAGGTTTTCATCAACTTTGC
CAAAGACCAGAAGTCCTATGAAACTGCTGATACCAGCAGCCAAGGTTCCACTATAAGTGTTGAC
TCACAAGATGACCAGATGGAGTCT**TAA**CACTTCCAGCAAACTCAATCTCAGCGTGTGACCAATG
GCTTCATTTTGAAGAAAAGCCACAGAAGATACACTTCCGCAAGATATCTTCATTTTAAAGTAAA
GTAATATACTGTATGGAAAGTTACAACTGTGTTAGACTAACAAGTAATTATAAAAGGAAATTTT
TCCTTCTAAGGTCAGTGAGTGTTGTTGCTACTGAAATGAATTCCTGTATACTCAACACTGTGAG
CATGCTAATGTATATGCTGGTGATTCTTATGCAAAGGTGAAGCCACCTCAAGATGAATATCTTA
ATTTATTACTTTC**AATAAA**AAGACAGTTTAAAAGGCAAAAAAAAAAAA

10

Figure 6:

5 **SEQ ID NO: 5**

MASLFHQLQILVWKNWLGVKRQPLWTLVLILWPVIIFIILAITRTKFPPTAKPTCYLAPRNLPSTG
FFPFLQTLLCDTDSKCKDTPYGPQDLLRRKGIDDALFKDSEILRKSSNLDKDSSLSFQSTQVPERR
HASLATVFPSPSSDLEIPGTYTFNGSQVLARILGLEKLLKQNSTSEDIRRELCDSYSGYIVDDAFS

10 WTFLGRNVFNKFCLSNMTLLESSLQELNKQFSQLSSDPNNQKIVFQEIVRMLSFFSQVQEQKAVWQ
LLSSFPNVFQNDTSLSNLFDVLRKANSVLLVVQKVYPRFATNEGFRTLQKSVKHLLYTLDSPAQGD
SDNITHVWNEDDGQTLSPSSLAAQLLILENFEDALLNISANSPYIPYLACVRNVTDSLARGSPENL
RLLQSTIRFKKSFLRNGSYEDYFPPVPEVLKSKLSQLRNLTELLCESETFSLIEKSCQLSDMSFGS
LCEESEFDLQLLEAAELGTEIAASLLYHDNVISKKVRDLLTGDPSKINLNMDQFLEQALQMNYLEN

15 ITQLIPIIEAMLHVNNSADASEKPGQLLEMFKNVEELKEDLRRTTGMSNRTIDKLLAIPIPDNRAE
IISQVFWLHSCDTNITTPKLEDAMKEFCNLSLSERSRQSYLIGLTLLHYLNIYNFTDKVFFPRKDQ
KPVEKMMELFIRLKEILNQMASGTHPLLDKMRSLKQMHLPRSVPLTQAMYRSNRMNTPQGSFSTIS
QALCSQGITTEYLTAMLPSSQRPKGNHTKDFLTYKLTKEQIASKYGIPINTTPFCFSLYKDIINMP
AGPVIWAFLKPMLLGRILHAPYNPVTKAIMEKSNVTLRQLAELREKSQEWMDKSPLFMNSFHLLNQ

20 AIPMLQNTLRNPFVQVFVKFSVGLDAVELLKQIDELDILRLKLENNIDIIDQLNTLSSLTVNISSC
VLYDRIQAAKTIDEMEREAKRLYKSNELFGSVIFKLPSNRSWHRGYDSGNVFLPPVIKYTIRMSLK
TAQTTRSLRTKIWAPGPHNSPSHNQIYGRAFIYLQDSIERAIIELQTGRNSQEIAVQVQAIPYPCF
MKDNFLTSVSYSLPIVLMVAWVVFIAAFVKKLVYEKDLRLHEYMKMMGVNSCSHFFAWLIESVGFL
LVTIVILIIILKFGNILPKTNGFILFLYFSDYSFSVIAMSYLISVFFNNTNIAALIGSLIYIIAFF

25 PFIVLVTVENELSYVLKVFMSLLSPTAFSYASQYIARYEEQGIGLQWENMYTSPVQDDTTSFGWLC
CLILADSFIYFLIAWYVRNVFPGTYGMAAPWYFPILPSYWKERFGCAEVKPEKSNGLMFTNIMMQN
TNPSASPEYMFSSNIEPEPKDLTVGVALHGVTKIYGSKVAVDNLNLNFYEGHITSLLGPNGAGKTT
TISMLTGLFGASAGTIFVYGKDIKTDLHTVRKNMGVCMQHDVLFSYLTTKEHLLLYGSIKVPHWTK
KQLHEEVKRTLKDTGLYSHRHKRVGTLSGGMKRKLSISIALIGGSRVVILDEPSTGVDPCSRRSIW

30 DVISKNKTARTIILSTHHLDEAEVLSDRIAFLEQGGLRCCGSPFYLKEAFGDGYHLTLTKKKSPNL
NANAVCDTMAVTAMIQSHLPEAYLKEDIGGELVYVLPPFSTKVSGAYLSLLRALDNGMGDLNIGCY
GISDTTVEEVFLNLTKESQKNSAMSLEHLTQKKIGNSNANGISTPDDLSVSSSNFTDRDDKILTRG
ERLDGFGLLLKKIMAILIKRFHHXRRNWKGLIAQVILPIVFVTTAMGLGTLRNSSNSYPEIQISPS
LYGTSEQTAFYANYHPSTEALVSAMWDFPGIDNMCLNTSDLQCLNKDSLEKWNTSGEPITNFGVCS

35 CSENVQECPKFNYSPPHRRTYSSQVIYNLTGQRVENYLISTANEFVQKRYGGWSFGLPLTKDLRFD
ITGVPANRTLAKVWYDPEGYHSLPAYLNSLNNFLLRVNMSKYDAARHGIIMYSHPYPGVQDQEQAT
ISSLIDILVALSILMGYSVTTASFVTYVVREHQTKAKQLQHISGIGVTCYWVTNFIYDMVFYLVPV
AFSIGIIAIFKLPAFYSENNLGAVSLLLLLFGHATFSWMYLLAGLFHETGMAFITYVCVNLFFGIN
SIVSLSVVYFLSKEKPNDPTLELISETLKRIFLIFPQFCFGYGLIELSQQQSVLDFLKAYGVEYPN

40 ETFEMNKLGAMFVALVSQGTMFFSLRLLINESLIKKLRLFFRKFNSSHVRETIDEDEDVRAERLRV
ESGAAEFDLVQLYCLTKTYQLIHKKIIAVNNISIGIPAGECFGLLGVNGAGKTTIFKMLTGDIIPS
SGNILIRNKTGSLGHVDSHSSLVGYCPQEDALDDLVTVEEHLYFYARVHGIPEKDIKETVHKLLRR
LHLMPFKDRATSMCSYGTKRKLSTALALIGKPSILLLDEPSSGMDPKSKRHLWKIISEEVQNKCSV
ILTSHSMEECEALCTRLAIMVNGKFQCIGSLQHIKSRFGRGFTVKVHLKNNKVTMETLTKFMQLHF

45 PKTYLKDQHLSMLEYHVPVTAGGVANIFDLLETNKTALNITNFLVSQTTLEEVFINFAKDQKSYET
ADTSSQGSTISVDSQDDQMES*

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Figure 7:

SEQ ID NO: 6

5
MASLFHQLQILVWKNWLGVKRQPLWTLVLILWPVIIFIILAITRTKFPPTAKPTCYLAPRNLPS
TGFFPFLQTLLCDTDSKCKDTPYGPQDLLRRKGIDDALFKDSEILRKSSNLDKDSSLSFQSTQV
PERRHASLATVFPSPSSDLEIPGTYTFNGSQVLARILGLEKLLKQNSTSEDIRRELCDSYSGYI
VDDAFSWTFLGRNVFNKFCLSNMTLLESSLQELNKQFSQLSSDPNNQKIVFQEIVRMLSFFSQV
QEQKAVWQLLSSFPNVFQNDTSLSNLFDVLRKANSVLLVVQKVYPRFATNEGFRTLQKSVKHLL
10
YTLDSPAQGDSDNITHVWNEDDGQTLSPSSLAAQLLILENFEDALLNISANSPYIPYLACVRNV
TDSLARGSPENLRLLQSTIRFKKSFLRNGSYEDYFPPVPEVLKSKLSQLRNLTELLCESETFSL
IEKSCQLSDMSFGSLCEESEFDLQLLEAAELGTEIAASLLYHDNVISKKVRDLLTGDPSKINLN
MDQFLEQALQMNYLENITQLIPIIEAMLHVNNSADASEKPGQLLEMFKNVEELKEDLRRTTGMS
NRTIDKLLAIPIPDNRAEIISQVFWLHSCDTNITTPKLEDAMKEFCNLSLSERSRQSYLIGLTL
15
LHYLNIYNFTDKVFFPRKDQKPVEKMMELFIRLKEILNQMASGTHPLLDKMRSLKQMHLPRSVP
LTQAMYRSNRMNTPQGSFSTISQALCSQGITTEYLTAMLPSSQRPKGNHTKDFLTYKLTKEQIA
SKYGIPINTTPFCFSLYKDIINMPAGPVIWAFLKPMLLGRILHAPYNPVTKAIMEKSNVTLRQL
AELREKSQEWMDKSPLFMNSFHLLNQAIPMLQNTLRNPFVQVFVKFSVGLDAVELLKQIDELDI
LRLKLENNIDIIDQLNTLSSLTVNISSCVLYDRIQAAKTIDEMEREAKRLYKSNELFGSVIFKL
20
PSNRSWHRGYDSGNVFLPPVIKYTIRMSLKTAQTTRSLRTKIWAPGPHNSPSHNQIYGRAFIYL
QDSIERAIIELQTGRNSQEIAVQVQAIPYPCFMKDNFLTSVSYSLPIVLMVAWVVFIAAFVKKL
VYEKDLRLHEYMKMMGVNSCSHFFAWLIESVGFLLVTIVILIIILKFGNILPKTNGFILFLYFS
DYSFSVIAMSYLISVFFNNTNIAALIGSLIYIIAFFPFIVLVTVENELSYVLKVFMSLLSPTAF
SYASQYIARYEEQGIGLQWENMYTSPVQDDTTSFGWLCCLILADSFIYFLIAWYVRNVFPGTYG
25
MAAPWYFPILPSYWKERFGCAEVKPEKSNGLMFTNIMMQNTNPSASPEYMFSSNIEPEPKDLTV
GVALHGVTKIYGSKVAVDNLNLNFYEGHITSLLGPNGAGKTTTISMLTGLFGASAGTIFVYGKD
IKTDLHTVRKNMGVCMQHDVLFSYLTTKEHLLLYGSIKVPHWTKKQLHEEVKRTLKDTGLYSHR
HKRVGTLSGGMKRKLSISIALIGGSRVVILDEPSTGVDPCSRRSIWDVISKNKTARTIILSTHH
LDEAEVLSDRIAFLEQGGLRCCGSPFYLKEAFGDGYHLTLTKKKVFLNLTKESQKNSAMSLEHL
30
TQKKIGNSNANGISTPDDLSVSSSNFTDRDDKILTRGERLDGFGLLLKKIMAILIKRFHHARRN
WKGLIAQVILPIVFVTTAMGLGTLRNSSNSYPEIQISPSLYGTSXQTAFYANYHPSTEALVSAM
WDFPGIDNMCLNTSDLQCLNKDSLEKWNTSGEPITNFGVCSCSENVQECPKFNYSPPHRRTYSS
QVIYNLTGQRVENYLISTANEFVQKRYGGWSFGLPLTKDLRFDITGVPANRTLAKVWYDPEGYH
SLPAYLNSLNNFLLRVNMSKYDAARHGIIMYSHPYPGVQDQEQATISSLIDILVALSILMGYSV
35
TTASFVTYVVREHQTKAKQLQHISGIGVTCYWVTNFIYDMVFYLVPVAFSIGIIAIFKLPAFYS
ENNLGAVSLLLLLFGHATFSWMYLLAGLFHETGMAFITYVCVNLFFGINSIVSLSVVYFLSKEK
PNDPTLELISETLKRIFLIFPQFCFGYGLIELSQQQSVLDFLKAYGVEYPNETFEMNKLGAMFV
ALVSQGTMFFSLRLLINESLIKKLRLFFRKFNSSHVRETIDEDEDVRAERLRVESGAAEFDLVQ
LYCLTKTYQLIHKKIIAVNNISIGIPAGECFGLLGVNGAGKTTIFKMLTGDIIPSSGNILIRNK
40
TGSLGHVDSHSSLVGYCPQEDALDDLVTVEEHLYFYARVHGIPEKDIKETVHKLLRRLHLMPFK
DRATSMCSYGTKRKLSTALALIGKPSILLLDEPSSGMDPKSKRHLWKIISEEVQNKCSVILTSH
SMEECEALCTRLAIMVNGKFQCIGSLQHIKSRFGRGFTVKVHLKNNKVTMETLTKFMQLHFPKT
YLKDQHLSMLEYHVPVTAGGVANIFDLLETNKTALNITNFLVSQTTLEEVFINFAKDQKSYETA
DTSSQGSTISVDSQDDQMES*